

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Redesignation of the)
17.7-19.7GHz Frequency) IB Docket No. 98-172
Band, Blanket Licensing) RM-9005
Stations in the 17.7-20.2 GHz) RM-9118
and 27.5-30.3 GHz Frequency)
Bands, and the Allocation of)
Additional Spectrum in the)
17.3-17.8 GHz and 24.75-25.25)
GHz Frequency Bands for)
Broadcast Satellite-Service)
Use)

COMMENTS OF
THE CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION

The Cellular Telecommunications Industry Association
("CTIA")¹ hereby submits its Comments in the above-captioned
proceeding.

I. INTRODUCTION

In the Notice of Proposed Rulemaking ("NPRM") for this
proceeding, the Commission acknowledged its concern

¹ CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the association covers all Commercial Mobile Radio Service ("CMRS") providers and manufacturers, including 48 of the 50 largest cellular and broadband personal communications service ("PCS") providers. CTIA represents more broadband PCS carriers and more cellular carriers than any other trade association.

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regarding the feasibility of sharing the 17.7-19.7 GHz spectrum band between terrestrial fixed services and fixed satellite service earth stations. The purpose of the NPRM is to address the Commission's proposed redesignation of the 17.7-19.7 GHz band among the various allocated services, as well as to address several other means for sharing the band.² CMRS carriers currently operate common carrier point-to-point microwave fixed services ("microwave fixed services") in the 17.7-19.7 GHz band. These microwave fixed services are integral to wireless carriers' ability to provide communications services, and therefore CTIA's members have a strong interest in ensuring the technical feasibility of the Commission's proposed band sharing plan.

The technical feasibility of the proposed band sharing plan will largely dictate the appropriateness of changes made to the rules and policies governing the 18 GHz band. CTIA is concerned that the Commission's proposed band sharing plan is unworkable for CMRS carriers who rely on

² See, In the Matter of Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency bands for Broadcast Satellite-Service Use, IB Docket No. 98-172, *Notice of Proposed Rulemaking* ("NPRM"), released September 18, 1998, at ¶ 1.

microwave fixed services to provide wireless services. If band sharing is not feasible due to unacceptable interference, microwave fixed services may have to relocate to other parts of the spectrum. In such a situation, new entrants should be required to pay for the relocation costs CMRS carriers incur, consistent with established Commission precedent.

II. CMRS CARRIERS USE OF THE 18 GHz BAND WARRANTS PROTECTION

The existing use of these microwave bands are important and warrant preservation. The superimposition of satellite systems upon frequency bands used for microwave fixed communications must be undertaken with care and with full consideration of technical feasibility. CMRS carriers currently use microwave fixed services in the 18 GHz band for backhaul capability when these facilities are the most economical and efficient way of accommodating a carrier's needs.³

The Commission's proposal sets aside 600 MHz of spectrum for primary use by terrestrial fixed services, and 650 MHz of spectrum for co-primary use by terrestrial fixed

³ Similarly, point-to-point microwave communications are of critical importance to public safety communication. Fixed point-to-point microwave is the most reliable, secure, and cost-efficient method of meeting public safety communications requirements.

services with satellite services.⁴ Furthermore, the Commission proposes to grandfather existing terrestrial fixed users in the portion of the band being redesignated for primary satellite use.⁵ Under the proposed rule, the grandfathered licensees would not be able to expand or change their point-to-point microwave operations in any aspect if it causes increased interference to satellite users who have primary use of that spectrum.⁶ In effect, grandfathering would freeze a licensee's operations, preventing expansion of services that by definition are not existing services. Since CMRS networks are characterized by rapid growth which requires the continual construction and operation of new sites, the inability to use new point-to-point microwave links to backhaul traffic from new sites will require CMRS carriers to abandon their existing grandfathered facilities, since a chain with broken links is no use.

With respect to the spectrum for which terrestrial fixed services have co-primary status, there are serious concerns that microwave fixed services can not share spectrum with satellite operators. This would prohibit

⁴ NPRM at ¶ 31.

⁵ Id. at ¶ 30.

future growth in the proposed co-primary channels, forcing incumbents to relocate or stagnate. In other words, co-primary status suffers from the same impediment as grandfathering existing services: microwave fixed services can not grow or expand without causing unacceptable interference to satellite services - and absent primary status, microwave fixed service providers must either relocate or allow their system to be frozen in time. The pulse of a competitor in a competitive marketplace is dependent on its ability to expand to meet consumer demand. Offering CMRS carriers the choice between freezing their existing point-to-point microwave networks, or abandoning their incumbent links, is not prudent spectrum management policy.

III. FIXED SERVICES CANNOT SHARE SPECTRUM WITH SATELLITE OPERATIONS

Technical feasibility should determine whether the proposed band sharing plan should be adopted. CMRS carriers raise serious concerns as to the feasibility of sharing in the 18 GHz band due to frequency coordination problems and the adverse impact on new or expanded microwave uses. Unacceptable interference is likely to occur when microwave fixed services and satellite services

⁶ Id. at ¶ 40.

operate in the same frequency bands, regardless of whether satellite co-primary operations are expected to be ubiquitously or non-ubiquitously deployed. This calls into question the Commission's fundamental premise that co-primary sharing between microwave fixed services and non-ubiquitous satellite services is possible. Moreover, given the expected deployment of satellite earth stations, and the likelihood of unacceptable interference, the future growth and expansion of microwave fixed services will be seriously inhibited.


Interference from sharing spectrum between microwave fixed services and satellite services will dictate relocation of microwave fixed services. If the Commission chooses to relocate microwave fixed services, the new entrants must be required to pay for any relocation costs, consistent with established Commission precedent.⁷ New satellite entrants should not be treated any differently than PCS entrants who were responsible for the relocation costs of any displaced incumbent licensees.

⁷ Id. at ¶ 41.

IV. CONCLUSION

CMRS carriers currently offer valuable and important microwave fixed services in the 18 GHz band which should be preserved. It is technically infeasible for such services to share the band on a co-primary basis without causing unacceptable interference regardless of whether satellite services are ubiquitously or non-ubiquitously deployed. CTIA urges the Commission to give substantial weight to CMRS carriers' claims regarding the technical abilities of their own systems. The Commission should not jeopardize CMRS carriers' ability to operate microwave fixed services in the 18 GHz band.

Respectfully submitted,


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